



INSTRUCTION MANUAL

VHF TRANSCEIVER **IC-V8**

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Icom Inc.



FOREWORD

Thank you for purchasing the IC-V8 FM transceiver. This transceiver is designed for those who require quality, performance and outstanding reliability under the most demanding conditions.

◆ FEATURES

- 5.5 W of ample output power
- MIL-STD810 grade durability
- CTCSS and DTCSS encoder/decoder standard
- Optional DTMF decoder

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

SAVE THIS INSTRUCTION MANUAL—This instruction manual contains important operating instructions for the transceiver.

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Count on it!

1.5 OPTION

BATTERY PACKS

Battery Pack	Voltage
BP-200	Battery case only
BP-210	7.2V
BP-216	7.2V
BP-222	7.2V

CHARGER

• BC-161 (optional charger) • BC-165 (AC adapter)

For rapid charging of battery packs. An AC adapter is supplied with the charger. Charging time: 1.5 to 2 hrs.

• BC-107 (ITU adapter)

For regular charging of battery packs. An AC adapter is not required. Charging time: 18 hrs.

• BC-146 (AC 100V charger) • BC-147 (AC adapter)

For regular charging of battery packs. An AC adapter is not required. Charging time: 18.5 hrs.

• BC-123 (optional charger) • AD-54 (ITU adapter)

For rapid charging of up to 2 battery packs (per AD-54) with the optional external display. Charging time: 1.5 to 2 hrs.

• BC-110 (optional charger) • AD-26 (ITU adapter)

For rapid charging of battery packs. An AC adapter is supplied with the charger. Charging time: 1.5 to 2 hrs.

A-6043H-1EX-②

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15 OPTIONS

◇ BATTERY PACKS

Battery Pack	Voltage	Capacity	Output Power	Operating Period* ¹
BP-208 ^{*2}	Battery case for R6 (AA) ×6 alkaline cells		5.5 W	—
BP-209	7.2 V	1100 mAh	5.5 W	7.5 hrs.
BP-210	7.2 V	1650 mAh	5.5 W	11 hrs.
BP-222	7.2 V	600 mAh	5.5 W	4 hrs.

*¹Operating periods are calculated under the following conditions:

Tx:Rx:standby=5:5:90, power save function: auto setting, is activated

*²Operation with the LOW output power selection is recommended.

◇ CHARGER

• **BC-144** DESKTOP CHARGER + **BC-145** AC ADAPTER

For rapid charging of battery packs. An AC adapter is supplied with the charger. Charging time: 1.5 to 2 hrs.

• **BC-137 (#11)** BATTERY CHARGER + **BC-122** AC ADAPTER

For regular charging of battery packs. An AC adapter is additionally required. Charging time: 15 hrs.

• **BC-146** BATTERY CHARGER + **BC-147** AC ADAPTER

For regular charging of battery packs. An AC adapter is additionally required. Charging time: 18.5 hrs.

• **BC-121N** MULTI-CHARGER + **AD-94 (#11)** CHARGER ADAPTER (6 pcs.)

For rapid charging of up to 6 battery packs (six AD-94's are required) simultaneously. An AC adapter may be supplied depending on version. Charging time: 1.5 to 2 hrs.

• **BC-119N** DESKTOP CHARGER + **AD-94 (#11)** CHARGER ADAPTER

For rapid charging of battery packs. An AC adapter is supplied with the charger. Charging time: 1.5 to 2 hrs.

◇ INTERNAL UNIT

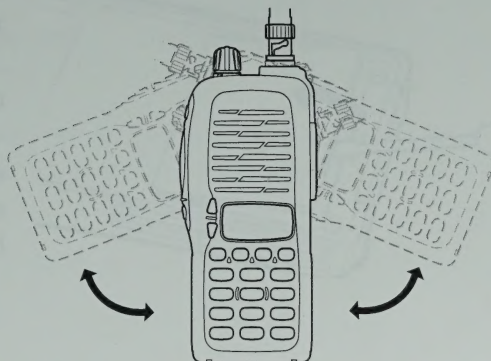
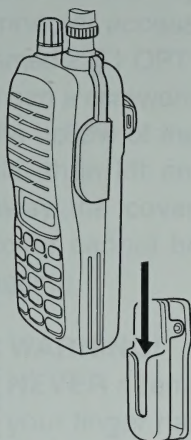
• **UT-108** DTMF DECODER UNIT

Provides pager and code squelch capabilities.

13 OPTIONAL UNIT

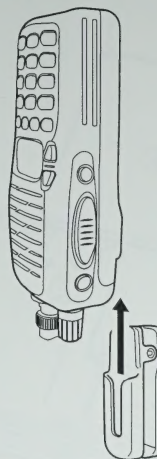
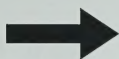
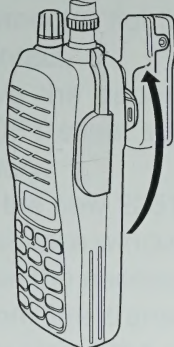
◆ MB-87 stopper

• When attaching



Once the transceiver is locked in place, it will swivel 360 degrees.

• When removing



CAUTION!

HOLD THE TRANSCEIVER TIGHTLY, WHEN ATTACHING OR REMOVING THE TRANSCEIVER FROM THE BELT CLIP.

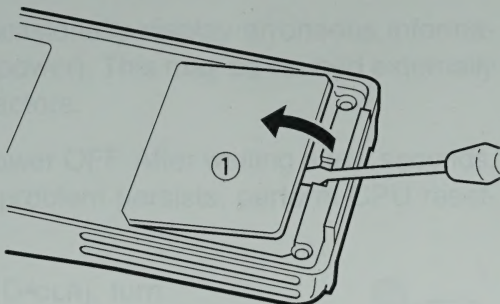
If the transceiver is accidentally dropped and the swivel belt clip's stopper is cracked or damaged, the swivel belt clip may not work properly.

13 OPTIONAL UNIT

■ Optional UT-108 installation

- ① Remove the optional connector access cover (named 2251 OPT sheet).

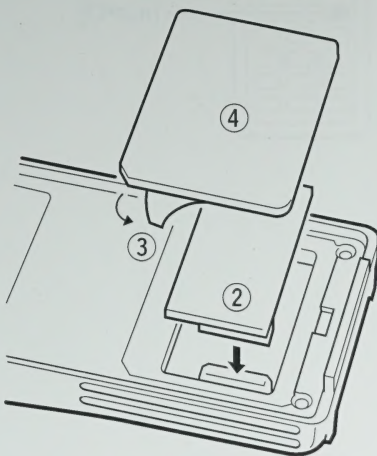
- Insert a screwdriver into the hollow of the chassis, then lift and take away the cover. (The cover cannot be used again.)



WARNING!

NEVER attempt to remove the optional connector cover using your finger nails, this may result in injury.

- ② Attach the optional unit. Insert the connector tightly to avoid a bad contact.
- ③ Remove the paper backing of 2251 OPT sheet supplied as an accessory.
- ④ Attach the new 2251 OPT sheet to the service window.
- ⑤ Program the necessary information from the transceivers key pads or using the cloning software, before operation.



11 OTHER FUNCTIONS

■ CPU reset

AT POWER ON

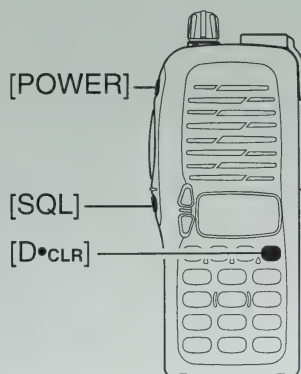
The function display may occasionally display erroneous information (e.g. when first applying power). This may be caused externally by static electricity or other factors.

If this problem occurs, turn power OFF. After waiting a few seconds, turn power ON again. If the problem persists, perform CPU resetting operation as follows.

- While pushing [SQL] and [D•CLR], turn power ON.

/// CAUTION:

Resetting the CPU returns the radio to factory default settings.




11 OTHER FUNCTIONS

◆ LCD contrast

Selects LCD contrast from auto and low.

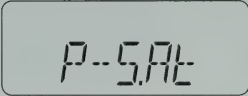
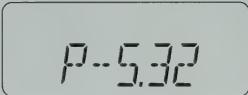
- LCd.AT : Automatic (default)
- LCd.LO : Low contrast

A rectangular LCD display showing the text "LCd.AT" in a monospaced font.

◆ Power save

Selects duty cycle for power save function from auto, 1:32, 1:16, 1:8, 1:2 and OFF.


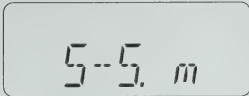
- P-S.At : Duty cycle changes automatically. (default)
- P-S.32 : 1:32 duty cycle
- P-S.16 : 1:16 duty cycle
- P-S. 8 : 1:8 duty cycle
- P-S. 2 : 1:2 duty cycle
- P-S.OF : The power save function is turned OFF.

A rectangular LCD display showing the text "P-S.At" in a monospaced font.A rectangular LCD display showing the text "P-S.32" in a monospaced font.

◆ Tuning speed acceleration

The tuning speed acceleration automatically speeds up the tuning speed when pushing and holding [▲] or [▼], or rotating [VOL] rapidly.*

- S-S.At : The tuning speed acceleration is activated. (default)
- S-S. m : The tuning speed acceleration is not activated.

A rectangular LCD display showing the text "S-S.At" in a monospaced font.A rectangular LCD display showing the text "S-S. m" in a monospaced font.

*When tuning dial is assigned with [VOL].


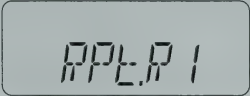
11 OTHER FUNCTIONS

U.S.A. version only

◆ Auto repeater

The auto repeater function automatically turns ON or OFF the duplex operation and tone encoder. The offset and repeater tone is not changed by the auto repeater function. Reset these frequencies, if necessary.

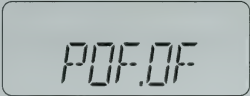
- RPt.OF : The auto repeater function is turned OFF.
- RPt.R1 : Activates for duplex only. (default)

A rectangular LCD display showing the text "RPt.OF" in a digital font.A rectangular LCD display showing the text "RPt.R1" in a digital font.

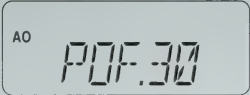
◆ Auto power-off

The transceiver can be set to automatically turn OFF after a specified period with a beep when no key operations are performed.

- 30 min., 1 hour, 2 hours and OFF (default) can be specified. The specified period is retained even when the transceiver is turned OFF by the auto power-off function. To cancel the function, select "POF.OF" in this set mode.

A rectangular LCD display showing the text "POF.OF" in a digital font.

AO

A rectangular LCD display showing the text "POF.30" in a digital font.

◆ Repeater lock-out

Selects lockout type from repeater, busy and OFF.

- RLO.RP : The repeater lockout is turned ON.
- RLO.bu : The busy lockout is turned ON.
- RLO.OF : No lockout is activated. (default)

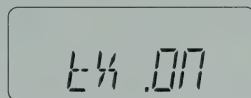
A rectangular LCD display showing the text "RLO.OF" in a digital font.A rectangular LCD display showing the text "RLO.RP" in a digital font.

11 OTHER FUNCTIONS

◆ Transmission permission

Turns transmission permission ON and OFF. This function can be set for each memory and call channel, independently.

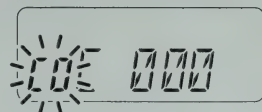
- tX .ON: Transmission is permitted. (default)
- tX .OF: Transmission is inhibited.



◆ Pager/Code squelch channel

Optional UT-108 required

Programs 3-digit ID code in channel "C0" and individual or group call code in channel "C1" to "C6" for the pager and code squelch functions. See p. 43 for programming details.




*This item appears only when the optional UT-108 is installed and pager or code squelch function is activated.

11 OTHER FUNCTIONS

■ SET MODE

◆ Entering SET MODE

- ① Push [A•FUNC], then push [8•SET].
- ② Push [▲] or [▼] to select the desired item.
- ③ Rotate [VOL] to select the condition/value.
 - To exit set mode, push [#•ENT ].

◆ Repeater tone frequency

Selects tone encoder frequency for accessing a repeater, etc. from one of 50 available frequencies.

- 67.0–254.1 Hz (50 tones): 88.5 Hz (default)



◆ Tone squelch frequency

Selects frequency for tone squelch or pocket beep operation from one of 50 available frequencies.

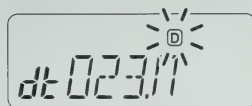
- 67.0–254.1 Hz (50 tones): 88.5 Hz (default)



◆ DTCS code

Selects DTCS encoder/decoder code with polarity (N: normal/I: inverse) from one of 208 available codes.

- 023N/I–754N/I: 023N (default)



◆ Offset frequency

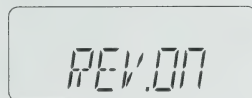
Sets the offset frequency for duplex (repeater) operation within 0–20.00 MHz range.



◆ Reverse function

Turns the reverse function ON and OFF.

- Default: OFF



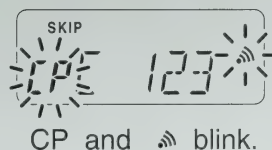
10 PAGER/CODE SQUELCH

◆ Waiting for a call from a specific station

- ① Set the operating frequency.
- ② Push [A•FUNC], then push [*•OPTION].
 - 100 MHz digit shows “P.”
- ③ Wait for a call.
 - When receiving a call, the caller’s ID or group code appears as shown below.
 - DO NOT push any digit keys while code channels C0 to C6 are displayed, or code channel contents will be changed.
- ④ Push [PTT] to send an answer back call and display the operating frequency.
- ⑤ After confirming a connection, push [A•FUNC], then push [*•OPTION] to select code squelch operation, or repeat previous key operation again to select non-selective calling system.

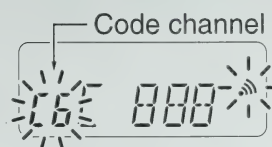
• PERSONAL CALLS

This display appears when you are called with your ID code and the calling station’s ID code is 123.



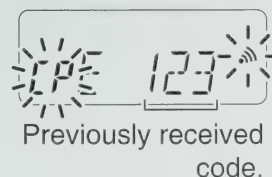
• GROUP CALLS

This display appears when you are called with the group code, 888, and 888 has been programmed into code channel C6.



• ERROR INFORMATION

When the transceiver receives an incomplete signal, “E” and previously received code appear.



10 **PAGER/CODE SQUELCH**

- **Receive accept/receive inhibit**

- ➡ “Receive accept” (“SKIP” indicator does not appear) accepts pager calls when the transceiver receives a signal with a code the same as that in the code channel.
- ➡ “Receive inhibit” (“SKIP” indicator appears) rejects calls even when the transceiver receives a code the same as that in the code channel. Transmit codes should therefore be programmed for “receive inhibit,” otherwise the transceiver will not reject unnecessary calls.

- **Pager/code squelch operation during channel indication**

To use these functions in channel indication, the pager/code squelch setting must be programmed with other memory contents before selecting channel number indication.

10 **PAGER/CODE SQUELCH**

■ **Code programming** Optional UT-108 required

◇ **Before programming**

The pager and code squelch functions require ID codes and a group code. These codes are 3-digit DTMF codes and must be written into the code channels before operation.

- ① Decide the ID code of each transceiver and a group code for your group.
- ② Decide whether you want to return to normal operation or code squelch operation after a connection is made.
- ③ Program the ID code, group code and transmit codes (other station's codes) as below.

◇ **Code channel assignment**

ID OR GROUP CODE	CODE CHANNEL NUMBER	"RECEIVE ACCEPT" OR "RECEIVE INHIBIT"
Your ID code	0	"Receive accept" only
Other parties' ID code	1–6	"Receive inhibit" should be programmed in each channel.
Group code	One of 1–6	"Receive accept" must be programmed.
Memory space*	P	"Receive inhibit" only.

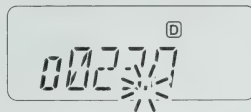
*Channel CP automatically memorizes an ID code when receiving a pager call. The contents in channel CP cannot be changed manually.

9 SUBAUDIBLE TONES

■ Tone scan

By monitoring a signal that is being operated with a repeater, pocket beep or tone squelch function, you can determine the tone frequency necessary to access a repeater or open the squelch.


- ① Set the frequency to be checked for a tone frequency or code.
- ② Push [A•FUNC], then push [1•TONE].
 - Repeat several times to select the tone condition or type to be scanned. (One of “♪,” “♫” or “Ⓜ” appears)
 - The tone scan can be operated even if the tone condition or type is not selected.
- ③ Push [A•FUNC], then push [3•T.SCAN] to start the tone scan.
 - To change the scanning direction, push [▲] or [▼].
- ④ When the CTCSS tone frequency or DTCS code is matched, the squelch opens and the tone frequency or code is temporarily programmed into the selected mode such as memory or call channel.
 - The tone scan pauses when a CTCSS tone frequency or 3-digit DTCS code is detected.
 - The decoded CTCSS tone frequency or 3-digit DTCS code is used for the tone encoder or tone encoder/decoder depending on the selected tone condition or type in step ②.
 - No indication : Cannot be used for operation.
 - “♪” : CTCSS tone encoder
 - “♫” : CTCSS tone encoder/decoder
 - “Ⓜ” : DTCS tone encoder/decoder
- ⑤ Push [D•CLR] to stop the scan.

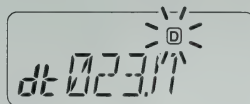


9 SUBAUDIBLE TONES

◆ Setting subaudible tones for tone squelch operation

Separate tone frequencies can be set for tone squelch operation rather than repeater operation (the same range of tones is available— see below). Like the repeater tones, these are set in set mode.

- ① Select VFO or memory channel.
- ② Push [A•FUNC], then push [8•SET] to enter SET MODE.
- ③ Push [▲] or [▼] several times until “Ct” appears when selecting CTCSS, or “dt” appears when selecting DTCS.
 - “Ct” blinks when selecting CTCSS, or “dt” blinks when selecting DTCS.
- ④ Rotate [VOL] to select the desired sub-audible tone.
- ⑤ Push [#•ENT >] to program the selected tone and exit SET MODE.



When SET MODE is selected from memory mode.

- ⑥ Push [A•FUNC], then push [C•MR] for 1 sec. to transfer the contents to VFO.
 - 3 beeps are emitted.
 - VFO mode is selected automatically.
- ⑦ Push [A•FUNC], then push [C•MR] for 1 sec.
 - 3 beeps are emitted.

Steps ⑥ and ⑦ are necessary when overwriting the memory contents permanently. The set tone frequency is used for temporary operation only, therefore, these steps are not necessary.

• Available CTCSS tone frequency list

67.0	79.7	94.8	110.9	131.8	156.7	171.3	186.2	203.5	229.1
69.3	82.5	97.4	114.8	136.5	159.8	173.8	189.9	206.5	233.6
71.9	85.4	100.0	118.8	141.3	162.2	177.3	192.8	210.7	241.8
74.4	88.5	103.5	123.0	146.2	165.5	179.9	196.6	218.1	250.3
77.0	91.5	107.2	127.3	151.4	167.9	183.5	199.5	225.7	254.1

8 SCAN OPERATION

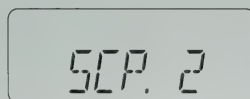
■ Scan resume condition USING SET MODE

When a signal is received during scanning, the scan resume condition determines what action the transceiver takes. The transceiver has 2 scan resume conditions available as illustrated at right. Use SET MODE to select the one which best suits your needs.

- ① Push [A•FUNC], then push [8•SET] to enter SET MODE.
- ② Push [▲] or [▼] several times until "SCP" or "SCt" appears.
- ③ Rotate [VOL] to select the desired scan resume condition.

• ***Pause scan:***

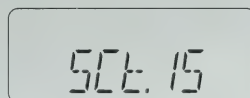
When receiving a signal, scan pauses on the signal until it disappears. Resumes 2 sec. after the signal disappears.




Pause scan

• ***Timer scan:***

When receiving a signal, scan pauses on the signal for 5 sec., 10 sec. or 15 sec., then resumes.



Timer scan

- ④ Push [#•ENT 

8 SCAN OPERATION

■ Memory scan

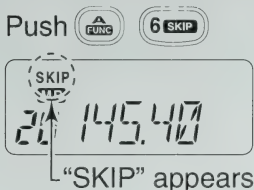
Memory scan repeatedly scans all programmed memory channels, except those set as *skip* channels.

- ① Push [C•MR] to select memory mode, if necessary.
 - “MR” appears.
- ② Push [A•FUNC], then push [5•SCAN] to start the scan.
 - To change the scan direction, push [▲] or [▼].
 - When [VOL] is assigned as tuning dial, rotate [VOL] to change the scan direction. (pgs. 17, 53)
- ③ Push [D•CLR] to stop the scan.

■ Skip channels

In order to speed up the scan interval, you can set memory channels you don't wish to scan as skip channels.

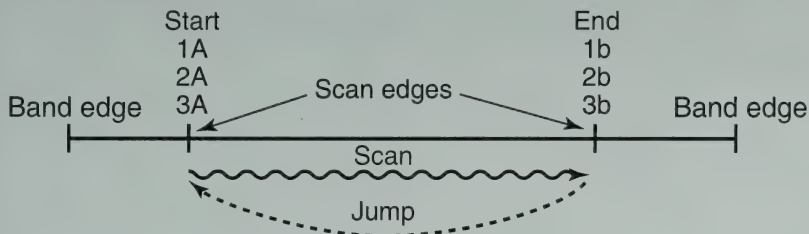
- ① Push [C•MR] to select memory mode, if necessary.
 - “MR” appears.
- ② Select a memory channel to set as a skip channel.
- ③ Push [A•FUNC], then push [6•SKIP] to toggle the skip setting ON and OFF.
 - “SKIP” appears when the channel is set as a skip channel.



8 SCAN OPERATION

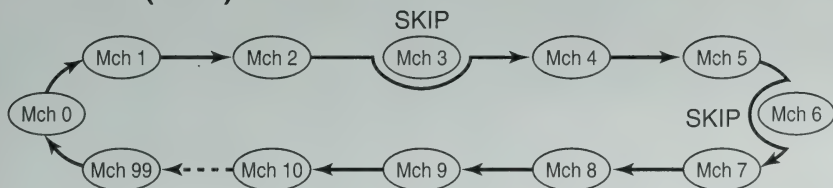
■ Scan types

PROGRAMMED SCAN



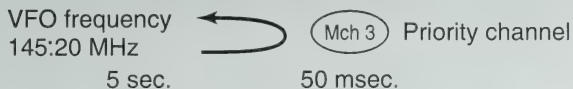
Programmed scan P1 scans between 1A and 1b, P2 scans between 2A and 2b, and P3 scans between 3A and 3b frequencies.

MEMORY (SKIP) SCAN

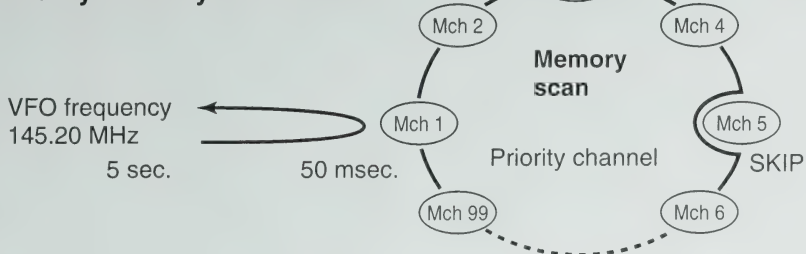


PRIORITY WATCH

Priority memory channel watch





Priority memory channel scan

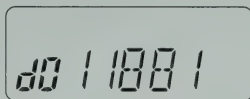


7 DTMF MEMORY

■ Programming a DTMF code

The transceiver has 5 DTMF memory channels (d0 to d4) for storage of often-used DTMF codes of up to 24 digits.

- ① Push [A•FUNC], then push [0•DTMF-M] to enter the DTMF memory.
 - One of “d0” to “d4” appears.
- ② Rotate [VOL] to select the desired channel.
- ③ Push [A•FUNC], then push [0•DTMF-M] for 1 sec. to enter the DTMF programming mode.
 - “_____” appears.
 - Programmed memories can be cleared in this way.
- ④ Push the digit keys, [A•FUNC], [B•CALL], [C•MR], [D•CLR], [*•OPTION] and [#•ENT - A maximum of 24 digits can be input.
- [*•OPTION] enters as “E”, [#•ENT - If a digit is mistakenly input, push [SQL] or [PTT] momentarily then repeat from step ①.
- ⑤ Push [SQL] or [PTT] to input the digits and exit the DTMF programming mode.
 - Programmed DTMF codes sound when [SQL] is pushed to exit.

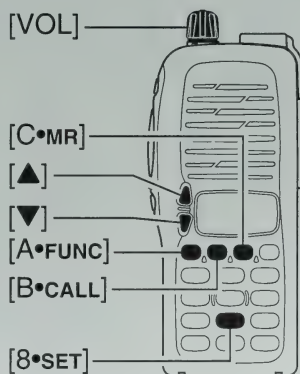


■ Memory transferring

Memory (call) channel contents can be transferred to the VFO or to another memory channel.

◇ Memory/call ⇒ VFO

- ① Select the memory (call) channel to be transferred:
 - ➡ Push [C•MR] or [B•CALL] to select memory (call) mode.
 - ➡ Push [▲] or [▼] to select the memory channel.
 - When [VOL] is assigned as tuning dial, rotate [VOL] to select the memory channel. (pgs. 17, 53)
- ② Push [A•FUNC], then push [C•MR] for 1 sec. to transfer the selected memory contents to the VFO.
 - VFO mode is selected automatically.



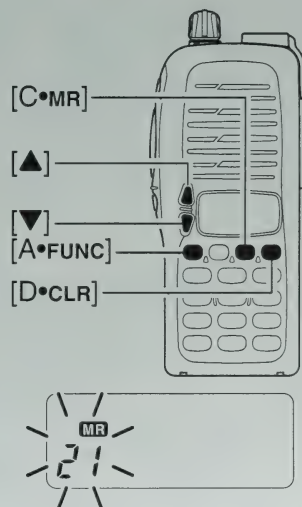
◇ Memory/call ⇒ call/memory

- ① Select the memory (call) channel to be transferred:
 - ➡ Push [C•MR] or [B•CALL] to select the memory (call) mode.
 - ➡ Push [▲] or [▼] to select the memory channel.
 - When [VOL] is assigned as tuning dial, rotate [VOL] to select the memory channel. (pgs. 17, 53)
- ② Push [A•FUNC], then push [C•MR] momentarily.
 - “--” and “MR” blink.
- ③ Push [▲] or [▼] to select the target memory.
 - When [VOL] is assigned as tuning dial, rotate [VOL] to select the target channel. (pgs. 17, 53)
- ④ Push [A•FUNC], then push [C•MR] for 1 sec.
 - Memory mode is selected and the contents are transferred to the target memory.

6 MEMORY/CALL OPERATION

■ Programming the memory/call channels

- ① Push [D•CLR] to select VFO mode, if necessary.
- ② Set the desired frequency.
- ③ Set other information, such as tone, duplex, as desired.
- ④ Push [A•FUNC], then [C•MR] momentarily.
 - “MR” and memory channel number blink.
- ⑤ Push [▲] or [▼] to select the desired memory channel.
 - When programming the call channel, select “C.”
 - When [VOL] is assigned as tuning dial, rotate [VOL] to select the memory channel. (pgs. 17, 53)
- ⑥ Push [A•FUNC], then push [C•MR] for 1 sec. (until 3 beeps are emitted) to program the information into the selected memory channel and return to VFO
 - Continue to hold [C•MR] down for 1 sec. after 3 beeps are emitted, to increment the displayed memory channel number.




5 REPEATER OPERATION

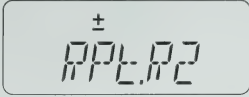
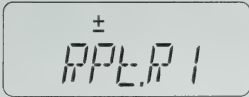
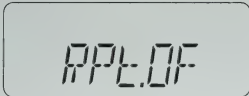
■ Auto repeater

USING INITIAL SET MODE

function (USA version only)

The USA version automatically activates the repeater settings (duplex, ON/OFF, duplex direction, tone encoder ON/OFF) when the operating frequency falls within or outside of the general repeater output frequency range. The offset and repeater tone frequencies are not changed by the auto repeater function. Reset these frequencies, if necessary.

- ① While pushing [▲] and [▼], turn the power ON to enter INITIAL SET MODE.
- ② Push [▲] or [▼] several times until “RPt.” appears.
- ③ Rotate [VOL] to select the desired condition.
 - “OF”— the auto repeater function is turned OFF;
 - “R1”— the auto repeater function activates for duplex only;
 - “R2”— the auto repeater function activates for duplex and tone.
- ④ Push [#•ENT 



Frequency range and offset direction


FREQUENCY RANGE	DUPLEX DIRECTION
145.200–145.495 MHz 146.610–146.995 MHz	“–” appears
147.000–147.395 MHz	“+” appears

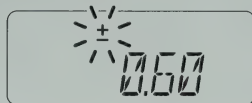
5 REPEATER OPERATION

■ Offset frequency

USING SET MODE

When communicating through a repeater, the transmit frequency is shifted from the receive frequency by an amount determined by the offset frequency.


- ① Push [A•FUNC], then push [8•SET] to enter SET MODE.
- ② Push [▲] or [▼] several times until “±” and offset frequency appear.
- ③ Rotate [VOL] to select the desired offset frequency.
 - Selectable steps are the same as the pre-set tuning steps.
 - The unit of the displayed offset frequency is “MHz.”
- ④ Push [#•ENT ) to fix the offset frequency and exit SET MODE.



■ Subaudible tones

USING SET MODE

Some repeaters require subaudible tones to be accessed. Subaudible tones are superimposed over your normal signal and must be set in advance.

- ① Push [A•FUNC], then push [8•SET] to enter SET MODE.
- ② Push [▲] or [▼] one or more times until “rt” appears.
- ③ Rotate [VOL] to select the desired subaudible tone.
- ④ Push [#•ENT ) to enter the selected tone and exit set mode.



Available subaudible tone frequencies

(unit: Hz)

67.0	79.7	94.8	110.9	131.8	156.7	171.3	186.2	203.5	229.1
69.3	82.5	97.4	114.8	136.5	159.8	173.8	189.9	206.5	233.6
71.9	85.4	100.0	118.8	141.3	162.2	177.3	192.8	210.7	241.8
74.4	88.5	103.5	123.0	146.2	165.5	179.9	196.6	218.1	250.3
77.0	91.5	107.2	127.3	151.4	167.9	183.5	199.5	225.7	254.1

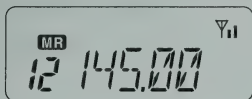
4 BASIC OPERATION

■ Display type

USING INITIAL SET MODE

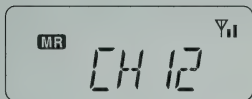
The transceiver has 3 display types to match your operating style. The display type is selected in the INITIAL SET MODE (p. 53).

“Frequency Indication” type



Displays operating frequency.

“Channel Number Indication” type

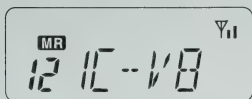


Displays memory channel number. In this type only pre-programmed memory channel numbers are displayed.

VFO mode cannot be selected.

- When the channel indication type is selected, only the following functions can be performed.
 - Scan function (p. 32)
 - Output power setting (p. 19)
 - DTMF memory function (p. 30)
 - Key lock function (p. 19)
 - Scan pause timer setting, function key timer setting and LCD backlight setting in SET MODE (p. 49)

“Channel Name Indication” type



Displays memory channel name you have assigned. In this display pre-programmed memory channel names are displayed.


VFO mode is selectable.

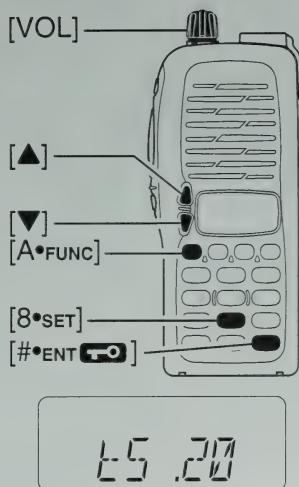
- Programmed frequencies are indicated pre-programmed in the selected memory channel.
- Push and hold [SQL] to display the operating frequency.

4 BASIC OPERATION

◆ Tuning step selection

The IC-V8 has 8 tuning steps— 5, 10, 12.5, 15, 20, 25, 30 and 50 kHz. The tuning step is selectable in SET MODE.

- ① Push [A•FUNC] then [8•SET] to enter SET MODE.
- ② Push [▲]/[▼] several times to select the tuning step item.
- ③ Rotate [VOL] to select the desired tuning step.
- ④ Push [#•ENT >] to exit SET MODE.



■ Setting audio/squelch level

◆ To set the audio level

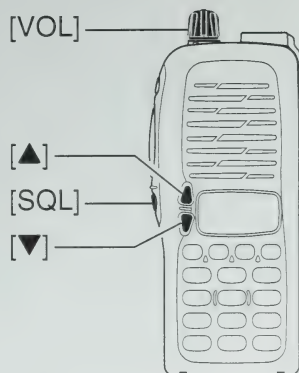
Rotate [VOL] to set the desired audio level while receiving a signal.

- When no signal is received, push and hold [SQL] while setting the audio level.
- When [VOL] is assigned as tuning dial, push [▲]/[▼] to adjust the audio output level. (pgs. 17, 53)

◆ To set the squelch level

While pushing [SQL], push [▲]/[▼] to set the squelch level.

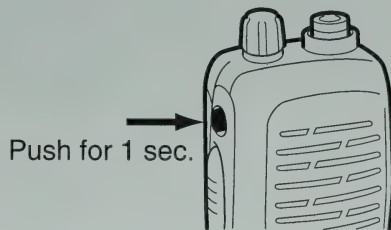
- The squelch level "1" is loose squelch, "10" is tight squelch.
- When [VOL] is assigned as tuning dial, rotate [VOL] while [SQL] is pushed. (pgs. 17, 53)



4 BASIC OPERATION

■ Power ON

Push [POWER] for 1 sec. to turn power ON.

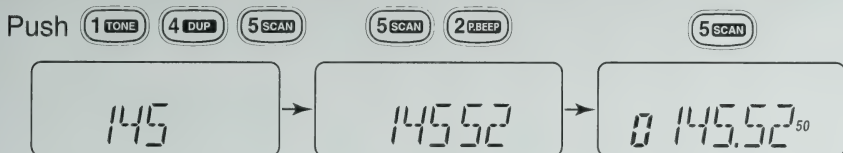


■ Setting a frequency

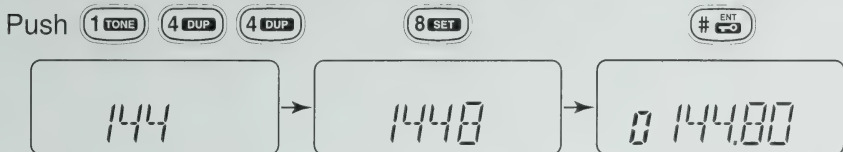
◇ Via the keypad

- ① Push [D•CLR] to select VFO mode, if necessary.
- ② To enter the desired frequency, enter 6-digits starting from the 100 MHz digit.
 - Enter three to five digits then pushing [#•ENT] is also set the frequency.
 - When a digit is mistakenly input, push [D.CLR] to abort inputting.

• Example 1— when entering 145.525 MHz



• Example 2— when entering 144.800 MHz



3 BATTERY PACKS

■ Charging NOTE

Prior to using the transceiver for the first time, the battery pack must be fully charged for optimum life and operation.

- Recommended temperature range for charging:
+10°C to +40°C (; +50°F to 140°F)
- Use the supplied charger or optional charger (BC-119N/121N/144 for rapid charging, BC-146 for regular charging) only. **NEVER** use other manufacturers' chargers.

The optional BP-222, BP-209 or BP-210 battery packs include rechargeable Ni-Cd (Ni-MH: BP-210) batteries and can be charged approx. 300 times. Charge the battery pack before first operating the transceiver or when the battery pack becomes exhausted.

If you want to charge the battery pack more than 300 times, the following points should be observed:

- Avoid over charging. The charging period should be less than 24 hours.
- Use the battery until it becomes almost completely exhausted under normal conditions. We recommend battery charging after transmitting becomes impossible.

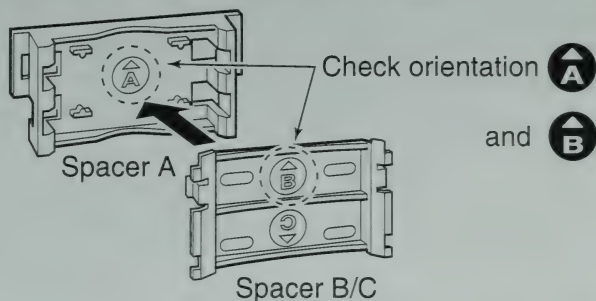
◆ Battery pack life

When the operating period becomes extremely short even after charging the battery pack fully, a new battery pack is needed.

3 BATTERY PACKS

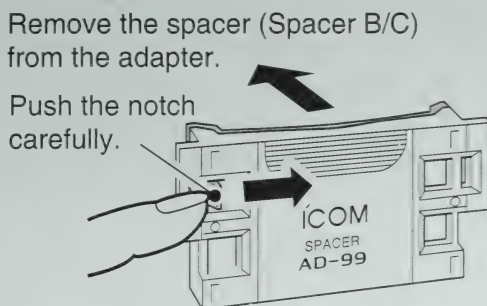
◆ About AD-99

Attach the spacer (Spacer B/C) to the adapter (Spacer A) with orientation as illustrated in the diagram below.



- Attach the spacer (Spacer B/C) to the adapter with the orientation of the stamp “**B**” pointing up.

When removing the spacer (Spacer B/C), push the notch carefully with your finger to remove the spacer (Spacer B/C) from the adapter (Spacer A).



⚠ CAUTION!

DO NOT push or force the notch with a screw driver, etc., to remove it.

DO NOT bend the notch when the adapter and spacer are not joined together. This will cause weakening of the notch plastic.

Both cases may break the notch and it may not be able to be reattached.

■ Battery caution

- **CAUTION! NEVER** short the terminals of the battery pack (or charging terminals of the transceiver). Also, current may flow into nearby metal objects such as a necklace, so be careful when placing battery packs (or the transceiver) in handbags, etc.
Simply carrying with or placing near metal objects such as a necklace, etc. causes shorting. This will damage not only the battery pack, but also the transceiver.
- **NEVER** incinerate used battery packs. Internal battery gas may cause an explosion.
- **NEVER** immerse the battery pack in water. If the battery pack becomes wet, be sure to wipe it dry **BEFORE** attaching it to the transceiver.
- **Clean** the battery terminals to avoid rust or poor contact.
- **Keep** battery contacts clean. It's a good idea to clean battery terminals once a week.

If your battery pack seems to have no capacity even after being charged, completely discharge it by leaving the power ON overnight. Then, fully charge the battery pack again. If the battery pack still does not retain a charge (or only very little charge), a new battery pack must be purchased (p. 62).

2 PANEL DESCRIPTION

■ Function display (continued)

⑨ SIGNAL INDICATOR

Appears when the channel is busy and shows receiving signal strength as below.



⑩ LOW POWER INDICATOR

Appears when low output power is selected. (p. 19)

⑪ KEY LOCK INDICATOR (p. 19)

Appears when the key lock function is ON.

⑫ FREQUENCY READOUT

Shows operating frequency, channel number or channel names, depending on display type (p. 20).

⑬ MEMORY CHANNEL INDICATOR

Indicates the selected memory channel number or other items such as the call channel, etc. (p. 25)

⑭ MEMORY MODE INDICATOR

Appears while in memory mode or channel number indication mode. (p. 25)

⑮ AUTO POWER OFF INDICATOR

Appears while the auto power OFF function is activated. (p. 52)

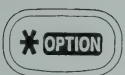
2 PANEL DESCRIPTION

◇ Key pad (Continued)



[0•DTMF-M]

- ➔ Input digit "0" during frequency input, memory channel selection, etc. (pgs. 16, 25)
- ➔ After pushing [A•Func], enters into the DTMF memory mode. (p. 30)



[*•OPTION]

Selects an optional pager or code squelch operation mode. (p. 43)



[#•ENT 

- ➔ Sets the frequency even if the full 6-digits of frequency have not been entered. (p. 16)
- ➔ After pushing [A•Func], switches key pad lock function ON and OFF when pushed for 1 sec. Lock all keys, except [POWER], [PTT], [SQL] and audio level adjustment. (p. 19)

2 PANEL DESCRIPTION

◇ Key pad



[A•FUNC]

Access to secondary function.



[B•CALL]

Select the call channel. (p. 25)



[C•MR]

➤ Selects a memory mode. (p. 25)

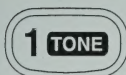
➤ After pushing [A•FUNC], entering into memory programming/editing mode. (pgs. 26, 28)

➤ After pushing [A•FUNC], programs/transfers VFO/memory or call channel contents into memory channel/VFO when pushed for 1 sec. (pgs. 26, 28)



[D•CLR]

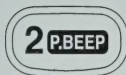
Selects VFO mode, aborts direct frequency input, or cancels scanning, etc. (pgs. 16, 33)



[1•TONE]

➤ Input digit "1" during frequency input, memory channel selection, etc. (pgs. 16, 25)

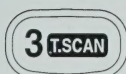
➤ After pushing [A•FUNC], selects the subaudible tone function. (pgs. 21, 37)



[2•P.BEEP]

➤ Input digit "2" during frequency input, memory channel selection, etc. (pgs. 16, 25)

➤ After pushing [A•FUNC], turn the pocket beep function ON and OFF (p. 39)



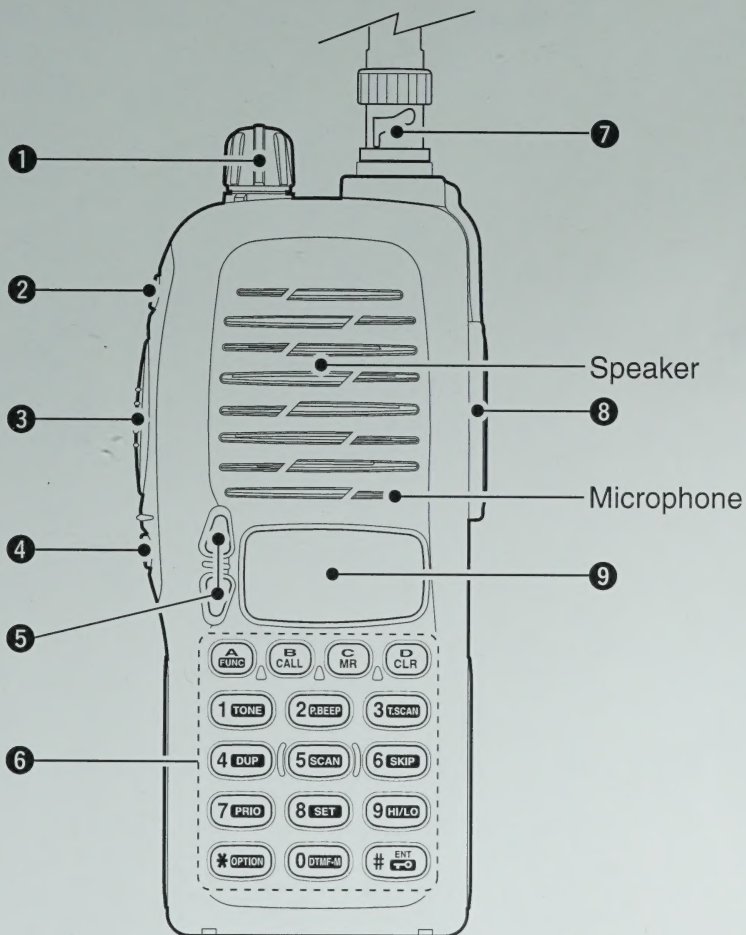
[3•T.SCAN]

➤ Input digit "3" during frequency input, memory channel selection, etc. (pgs. 16, 25)

➤ After pushing [A•FUNC], starts the tone scanning. (pgs. 23, 40)

2 PANEL DESCRIPTION

■ Switches, controls, keys and connectors

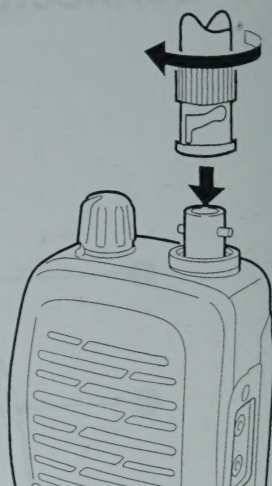


■ Accessory attachment

◇ Antenna

Attach the antenna to the transceiver as illustrated at right.

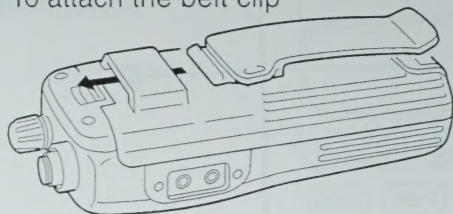
Keep the jack cover attached when jacks are not in use to avoid bad contacts.



◇ Belt clip

Attach the belt clip to the transceiver as illustrated below.

To attach the belt clip



To release the belt clip

